SEMINAR

THE INLAND WATERWAYS OF TOMORROW ON THE EUROPEAN CONTINENT

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Investment in Inland Waterways?
Infrastructure Needs

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Statement

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Assuming that the evolution process as a such can be divided in two main eras: a period of smooth development without dramatic changes and a period with deep and relatively fast changes - let us say a period of revolution - we can say that the European inland waterway transport is going through a "revolutionary" period. This period is a transition one which is accompanied by unambiguous indications of crises. European inland waterway transport was in deep crisis when the performance of the inland navigation began to decline, when its role in the global European transport system began to be uncertain, when very important inland waterway infrastructure development projects were abandoned or suspended. In Western Europe this period came to an end roughly in the early 1990's when the acting EU Commissioner for transport, who defined inland waterway transport as "a forgotten means of transport" called for its revitalization, and when the first Pan-European Conference of Transport Ministers on questions of inland navigation took place in Budapest, and when the Main-Danube canal was opened. In Central and East European countries, this stage lasted a few years longer because of the deep social and economical changes in the region and the Yugoslavian crises. This transition's stage was basically a negative one, I would say, the era of "why-type" questions and doubts. Now, I believe we are going through the second stage of the transition with a mixture of problems and promising new developments. Among the new developments I would first like to mention the improving position of inland navigation in international trade. Let me refer to the Hungarian experience in this regard which shows at this time a strange mixture of the existence of the near past in the mind and -- I believe -- the forming practical trend for the near future. In 1998, the year just before the last Yugoslavian war and the destruction of bridges at Novi Sad, the Hungarian export-import trade on the Danube reached a volume of approximately 5 million tonnes -- more than ever before and 10% of the all Hungarian external trade. Nevertheless, some people think there is practically no navigation on the Hungarian stretch of the Danube and that inland navigation generally is becoming insignificant. Going back to the Pan-European level there are some very important developments regarding the legal framework of inland navigation. Just to give an indication, I would like to recall the European agreements on inland waterways (AGN), on transport of dangerous goods (ADN) and on the contract for carriage of goods (CMNI). Generally this stage of the transition can be characterized by arising new hopes and perspectives with some remaining uncertainty and a number of "how-type" questions. The third stage shall be the end of the crisis -- the establishing and strengthening of new trends which will dominate the next smooth development period. In this period probably we have to answer "when-type" questions mainly.

In the present situation, European inland waterway transport is facing the basic problem of finding proper answers to the "how-type" questions in order to be able to go over to the third, closing phase of the transition period. Let me introduce some of these questions and, in thinking out loud, give you my opinion on some possible answers.

One of the most powerful tools for the increase of European inland waterway transport's performance can be the establishment of direct navigation connections between the principal European waterways. It is worth mentioning that the opening of the Main-Danube canal and hereby the establishment of connections between the Rhine and the Danube led to the very significant inland waterway transport development on the upper and middle section of the Danube. As a result, the Rhine estuary region became one of the most important overseas gateways for Austria and Hungary that would be impossible without the canal connection. The connection between the principal European rivers -- those which flow directly into the sea -- can be created by two means: by building navigational canals and a number of hydraulic works or by using short sea shipping and coastal routes between the river estuaries. By the way I would like to make reference to the European agreement on inland waterways of international importance - the AGN agreement - which covers the European coastal routes between the principal rivers as well - although without any specific requirements regarding these routes.
It is absolutely clear that the European shipping industry has to do a lot in order to introduce direct connections between the different river ports over sea routes. It is an evidence even though, there have been successful initiatives of the Hungarians, Soviets and followed by the Russians and Ukrainians and later by the Rhine shipping industry to introduce and run river-sea lines: I think these very respectable efforts mean the first steps towards creating a possible Pan-European river-sea transport system. This problem, of course, can have deep interaction with the development of the European short-sea shipping which is one of the priority fields of the European Union's transport policy. It is important to stress in this regard that the development of the short-sea shipping and the river-sea transport systems has to be done in close cooperation. The use of the short sea shipping routes for establishing direct connections between river ports is in principle always possible but -- besides obligate questions of economical viability -- leads to difficulties of a technological nature. In general terms it is very difficult -- or even impossible -- to build ships which can be safely and effectively run on rivers and also across seas. The former Soviet Union took a decision to create a "short-sea-like" inland waterway system with a water depth of 3.5 m and introduced shipping services using specialised river-sea going ships. This solution demonstrated that the waterway system was appropriate for certain trades but could accommodate small vessels only in comparison with the sea ships that surely restricted the profitability and therefore the development of shipping services. Moreover it seems to be fully unrealistic to create an extensive waterway system with such characteristics throughout Europe. In this regard it is worth mentioning that the Danube Commission took a decision in the 1960's to develop the Danube waterway up to Vienna with 3.5 m water depth. The foreseen waterway technically would allow the Volga and Dnieper standard river-sea going ships to reach a number of Danubian ports in Central Europe, but we can not expect realization of this project. On this basis, I can see two essential elements of the European transport policy regarding the facilitation of shipping services' development between river ports over short-sea routes:

- The improvement of the concerned waterways is absolutely necessary up to water depths which allow vessels with 2.5 m draught to sail practically without restrictions -- in my opinion for the Danube this means no less than 300 days a year. In so far as it is economically and environmentally viable we have to try to reach higher standards on certain river sections connecting to sea but being aware that a maximum 3 000-5 000 ton vessels can be accomodated.
- Vessel dimension limitations on inland waterways lead to the result that only certain goods and transport relations can be served by river-sea going ships for economical reasons. In order to acquire more market share it is necessary to use all possibilities at our disposal for development of river estuary ports and short-sea shipping technology. In the latter case it can be fruitful to investigate the employment of barge-carrier technologies.

The other possibility to connect ports in different river basins consists of building navigational canals and hydraulic works between concerned rivers. As a rule it is a costly measure but in many cases the main problems that occur relate to the environment and ecology. Builders of such a waterway connection have to face the need of waterway development on the upper section of concerned water courses or small rivers. In order to provide appropriate navigation conditions the so-called "inserted" waterway section must at a minimum meet the requirements of European waterway class IV -- in the case of a connection between trunk waterways of international importance, even the class V or VI. In the case of the connection between the Rhine and the Danube the "inserted" waterway section comprises in fact the Main, the Canal and the German Danube section.) Because of the usual combination of relatively minimal water flow with relatively steep slope on the "inserted" waterway sections the mentioned goals can be reached as a rule by building special hydraulic works -- dams, canals, locks, elevators. Considerable ecological and environmental problems may arise because these works can change the given nature and flow regime of the rivers concerned; in this regard it is important that the concerned rivers are natural water courses. The works may also affect or endanger the region's flora and fauna. It seems to me that in technical sense we can find a satisfactory solution by respecting two principles:
- Natural water courses (rivers) shall be left as they are in their natural state as far as possible. This means, by the way, that the fairway for shipping in many cases has to be removed from the river bed.
- Hydraulic works incorporating a navigation canal, (if the fairway has been removed from the river bed) have to be designed and constructed according to the requirements of shipping and, of course, water management. The old model of designing hydraulic works on the basis of the requirement to reach maximum energy production in the case of "inserted" waterway sections does not seem to work properly.

In order to be able to sail through Europe from the Thames to the Volga (or even farther) without mishap and maybe in the framework of an integrated inland waterway-short sea shipping transport system, we need a proper legal environment. This environment certainly has a number of aspects and elements. I would just like to address very briefly two of them: the relationship between the laws on seas and on inland waterways as well as some questions regarding technical prescriptions of inland navigation vessels.

Taking into account the dimensions and outstanding economic importance of the maritime shipping industry, as well as the integration of maritime and continental transport modes in the framework of intermodal transport systems, it is understandable that maritime transport is having a growing influence on continental transport modes. This influence can be observed in the case of inland navigation as well. In this respect, reference can be made to the CMNI convention on the contract for carriage on inland waterways and on the CRDNI convention on liability for damage in connection with the carriage of dangerous goods, which is currently under preparation. Obviously this process will go further and acquire new dimensions with progress in the integration of maritime, especially short sea shipping and inland navigation.

It is indisputable that a Pan-European harmonization of technical requirements and prescriptions for inland navigation vessels constitutes one of the most important conditions for an unhindered navigation across Europe. This mission has been taken on by the Economic Commission for Europe of the United Nations Organization for several decades already. Very good results have been achieved thanks to the hard work of experts regarding the approximation of Rhine and Danube regulations in particular. Nevertheless, we must still address the needs and requirements of the various confluent waterways, in order to ensure the Danube basin navigability. The problem has both a legal side and a professional side. The legal side is a very difficult one and may perhaps be resolved by establishing a Pan-European legal and institutional framework as in the case of the maritime shipping. The professional side seems to be simpler, but in my view, requires a profound change of the applied approach by elaborating prescriptions is needed. Technical requirements have been adopted traditionally for the various waterways or river basins separately -- not only in the legal but also in the professional sense -- this creates a few classical questions when trying harmonize them, like:

- how should the problem be handled when different levels of safety are suspected?
- how should the problem be handled when the equivalency of safety levels can be verified but the sets of prescriptions for waterways and river basins concerned have different structures?
- how should the problem be handled when the equivalency of certain requirements for waterways and river basins concerned can be proved whilst they have different formulations?

These questions are difficult to answer in many cases. In my view it is even more problematic that according to this approach the individual waterways and river basins are put into the centre of consideration that strengthens the inclination to some kind of separationism in mind. I think we have to change it and transfer our focus to zones of navigation. Applying this approach, technical requirements have to be elaborated for zones of navigation regardless of their geographical position. I have to admit, the idea is not a revolutionary one, because the European Commission has already chosen this way. Besides we can note that the relevant UN/ECE provisions are in fact based on zones of navigation -- but they are not effective legal instruments. I think it is a task for us to work out a
Pan-European legal instrument that provides unified technical requirements for zones of navigation on all European waterways.

The opening of the Rhine-Main-Danube waterway forced the Rhine and Danube riparian states to deal with the practical problems in order to facilitate shipping between the two international waterways.

The most important European waterways, the Rhine and the Danube have very similar international legal regimes. Basic principles of these regimes were laid down in a number of international legal instruments as for example in the related provisions of the documents of the Vienna Congress and the Paris Peace Treaty of the 19th century. One of the most important requirements reflected in the mentioned international legal instruments is the freedom of navigation, which can be interpreted as a right:

- to have the possibility to use the waterway and the ports opened for the international navigation without legal restrictions;
- to have the possibility to access to the freight market on a basis of equal treatment and non-discrimination based on flag or ship’s nationality;
- to have proper navigational conditions on the waterway, at least conditions that do not obstruct and hamper the navigation, and that enable shipping to be economically viable and competitive.

Freedom of navigation serves as a "rock" on which the Mannheim Acts of 1868 and the Belgrade Convention of 1948 have been built. However, the implementation of these principles raises several problems on both rivers that I would like to focus on.

The possibility to sail on the waterway is linked to the requirement to have ship’s and shipmaster’s certificates which are valid for the waterway in question. At present, the Rhine and the Danube certificates are generally neither harmonised nor mutually recognised. Current shipping practice solves this problem for the ships and for the shipmasters in different ways, while there are different approaches being followed on the two rivers — regarding to the ship’s certificates. The Rhine ship's certificate needs validation on the Danube. It can be made "automatically", which means by a unilateral declaration or administrative act of a Danubian country whitout any special examination. This is the case for example in Hungary: the acceptance of the Rhine ship’s certificate is guaranted by the law. In contrast, the Danubian ship’s certificate in principle can not be accepted on the Rhine because of provisions of the Mannheim Acts providing exclusive rights for the Rhine countries to issue certificates valid on the Rhine. In this case, all Danubian ships wishing to sail on the Rhine have to go through a full examination on the Rhine. The situation we are in is in practice manageable — and we in fact manage it, but it is worth mentioning that:

- the Rhine and Danubian countries are not in equal position: with such a legal context the equitable mutual acceptance of the certificates seems to be impossible;
- the requirement of a full examination on the Rhine causes needless administrative and financial burden in most cases for the Danubian ships.

Concerning the recognition of shipmaster’s certificates, the position of the Danubian and the Rhine countries is much more balanced. On both rivers, there exists a similar system of acceptance, which has only one condition: holders of the Rhine certificate have to pass an exam on local Danubian conditions and have to complete a prescribed number of trips on the Danube. On the Rhine, we have the same procedure for holders of a Danube certificate. Moreover, regarding some certificates — for example in the case of a certificate for navigation with help of a radar device — direct recognition is also possible. This system works well and supports maintaining a high level of navigation safety.

Market access on the Rhine and the Danube shows a totally different picture. In principle, the Rhine market is completely free for ships belonging to the Rhine navigation. Until 1978, a ship could belong to the Rhine navigation having a Rhine ship’s certificate. It was a real free market, but in practice only for the ships flying the flag of a party to the Mannheim Acts, because the Rhine was physically
unreachable for inland navigation ships from other countries. The opening of the Rhine-Main-Danube canal changed the situation dramatically. With the appearance of Danubian ships on the Rhine, the shipping industry on the Rhine got the governments to add to the Mannheim Acts the well-known 2nd Added Protocol and some consecutive measures of the European Communities. Now ships belonging to the Rhine navigation have to have — among others -- a very strict owners and operators structure. As a result, the Rhine market is completely open for ships flying the flag of a EU member country and Switzerland, but virtually closed to ships of other countries.

On the Danube, again, not a market per se, but a government-controlled, planned economy-like shipping was established after World War II. As a result of the major social and economic changes in the Danubian countries starting at the very end of the 1980s, involving a rapid and profound liberalization, the Danubian shipping market became a real market, that — apart from some restrictions in trade between the Danubian and Rhine countries — became free for any ship able to reach the river. The mentioned restrictions relating to "third flag" and "third country" transport appear in bilateral inland shipping agreements concluded around 1990 between Germany (as a Rhine country) and the Danubian countries. It is a joke of history: the agreements originally intended to defend Rhine navigation against the "big red fleets" now hamper market access for Rhine navigation on the Danube. The EU countries are obviously interested in fully opening the Danubian market and the Danubian countries — in opening the Rhine market. Considering the very serious fleet structure and capacity problems on the Danube and in some cases on the Rhine, the only way to open markets is by following the principle of reciprocity in a step-by-step manner. I think the river commissions for the Rhine and the Danube have to play a leading role in this process.

Concerning the navigability of the waterways, there are problems on some Danube sections with shallow water and a very complex problem of bridge debris at Novi Sad in Yugoslavia. A number of Danube sections do not meet the absolute basic requirement to allow ships to sail with a draft of 2.5 m during the navigational period. The most important bottlenecks we find:

- in Germany between Straubing and Vilshofen;
- on the border section between Slovakia and Hungary;
- at a number of places along the border section between Bulgaria and Romania;
- on the Romanian section at Cernavoda;

where from time to time there is a water depth of only 1.5 m.

The blockage of navigation at Novi Sad is in fact already over, although the destroyed parts of three bridges are still lying in the river bed. As a result of common actions of the EU, the Danubian countries and the Yugoslavian authorities, it is now possible for cargo ships to pass through this section. There exists a temporary fairway, but ships have to adjust to the time table of opening the pontoon bridge crossing the Danube. In 2001 the pontoon bridge was opened 30 times and a total of 3 705 ships used this possibility to pass.